IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

COSMOKEY SOLUTIONS GMBH & CO. KG,	)))	
Plaintiff,	))	
v.	))	C.A. No. 18-1477 (JLH) (CJB)
DUO SECURITY, INC. n/k/a DUO SECURITY LLC and CISCO SYSTEMS, INC.,	)))))	REDACTED - PUBLIC VERSION
Defendants.	)	

**DEFENDANTS' REPLY BRIEF IN SUPPORT OF DEFENDANTS'
DAUBERT MOTION TO EXCLUDE THE OPINIONS OF
<u>PLAINTIFF'S EXPERT DR. ERIC COLE</u>**

OF COUNSEL:

Brian A. Rosenthal
Katherine Dominguez
Allen Kathir
Hyunjong Ryan Jin
Charlie Sim
GIBSON, DUNN & CRUTCHER LLP
200 Park Avenue
New York, NY 10166-0193
(212) 351-4000

Jaysen S. Chung
Julian Manasse-Boetani
GIBSON, DUNN & CRUTCHER LLP
One Embarcadero Center, Suite 2600
San Francisco, CA 94111-3715
(415) 393-8200

Nathaniel R. Scharn
GIBSON, DUNN & CRUTCHER LLP
3161 Michelson Drive, Suite 1200
Irvine, CA 92612-4412
(949) 451-3800

MORRIS, NICHOLS, ARSHT & TUNNELL LLP
Jennifer Ying (#5550)
Travis J. Murray (#6882)
1201 North Market Street
P.O. Box 1347
Wilmington, DE 19899
(302) 658-9200
jying@morrisnichols.com
tmurray@morrisnichols.com

*Attorneys for Defendants Duo Security LLC
f/k/a Duo Security, Inc. and Cisco Systems, Inc.*

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TABLE OF CONTENTS

TABLE OF AUTHORITIES

TABLE OF EXHIBITS

Ex.	Description
1	Transcript for December 16, 2024 Deposition of Dr. Eric Cole (excerpts)
2	IPR2019-01638, POPR
3	U.S. Patent No. 9,246,903
4	CosmoKey's May 1, 2023 Infringement Contentions (excerpts)
5	CosmoKey's November 13, 2023 Infringement Contentions (excerpts)
6	Transcript for April 12, 2024 Claim Construction Hearing (excerpts)
7	Transcript for April 15, 2024 Teleconference Regarding the Court's Claim Construction Rulings (excerpts)
8	CosmoKey's May 10, 2024 Infringement Contentions (excerpts)
9	CosmoKey's November 22, 2024 Infringement Contentions (excerpts)
10	Dr. Eric Cole's September 20, 2024 Opening Report
11	Dr. Eric Cole's November 15, 2024 Reply Report
12	Transcript for December 5, 2024 Deposition of Dr. Benjamin Goldberg (excerpts)
13	Transcript for December 16, 2024 Deposition of Dr. Eric Cole (additional excerpts)

TABLE OF ABBREVIATIONS

Abbreviation	Description
'903 patent	U.S. Patent No. 9,246,903
Br.	D.I. 332 (Defendants' Opening Brief)
CK	Plaintiff CosmoKey
Defendants	Defendants Duo Security LLC and Cisco Systems, Inc.
Opp.	D.I. 364 (Plaintiff CosmoKey's Answering Brief)
Opp. Ex.	Exhibits Identified in D.I. 366 (Declaration of John Padro)

I.   INTRODUCTION AND SUMMARY OF THE ARGUMENT

Defendants detailed why Dr. Cole's construction of "authentication function" as "software elements needed to authenticate," under which it can be an arbitrary source code block, is legally wrong: it finds no support in—and is inconsistent with—the '903 patent specification, and would render the claims indefinite. D.I. 332 ("Br.") 8–12. CosmoKey ("CK") identifies no support in the specification for Dr. Cole's construction. Instead, all CK can muster are citations to the specification that confirm what Defendants have explained—that the specification's disclosures about the "authentication function" are limited to two categories of embodiments: (1) a hardware component within a mobile device (*i.e.*, a transceiver or a SIM card); and (2) an applet. Br. 8–9. CK's assertions that the "authentication function" can be *part of* or *something less than* an applet (D.I. 364 ("Opp.") 8) or software residing on a hardware component (Opp. 9–10) find no support in the specification and should be rejected.

II.   ARGUMENT

A.   Dr. Cole's Construction of "Authentication Function" Is Legally Wrong

1.   The Construction Is Inconsistent With the Specification

CK does not dispute that the specification's disclosures concerning the recited "authentication function" are limited to embodiments where the "authentication function" is: (1) a hardware component within a mobile device (*i.e.*, a transceiver or SIM card); and (2) an applet. CK likewise identifies no description suggesting it can be an arbitrary source code block, as Dr. Cole contends. Br. 1–2, 6–7. Thus, because CK has "fail[ed] to pinpoint in the intrinsic record where the patent contemplates" Dr. Cole's "authentication function" interpretation, the inquiry should end there: his construction is wrong as a matter of law. Br. 9–10.

Nevertheless, CK makes three arguments to contend that Dr. Cole's opinions "align" with the specification. Opp. 8–12. Each fails for the reasons discussed below.

1

i.   CK argues the "specification clearly describes the use of software as an 'authentication function,'" such that the "authentication function" can be an arbitrary source code block. Opp. 8. But neither passage CK cites supports Dr. Cole's construction.

CK's first cited passage refers to "memory with *program code*" that is "include[d]" in "controller 44."[1] Ex. 3 at 9:8–12. However, the "controller 44" is *not* the "authentication function," but instead, "has the only function to activate and deactivate" "the authentication function (i.e., the transceiver 40)." Ex. 3 at 8:38–45. Thus, because "controller 44" is not the authentication function, any "program code" that is "include[d]" in the controller has nothing to do with the "authentication function (i.e., the transceiver 40)," and is thus irrelevant to this issue.

CK's second cited passage merely confirms that, as Defendants have explained (Br. 8–9), one of the two categories of disclosed embodiments concerning the "authentication function" is an "*applet* that can be activated and deactivated independently of the apparatus 30 *as a whole*." Ex. 3, 6:59–62. Contrary to CK's suggestion, nothing in this passage even hints that the "authentication function" can be a part of or something less than the applet itself (*e.g.*, an arbitrary source code block that is part of the applet). Even Dr. Cole correctly conceded in his infringement report that this passage about the "applet" embodiment is an "example[] where the authentication function is *in the form of* an application"—not some *part of* the application. Ex. 10 ¶ 98 (citing '903 patent, 6:59–62); *see also* Opp. Ex. 13, 15:7–8, 15:24–25 (stating that an "applet" is another term to refer to an application). He conceded the same at deposition: "[t]he applet that's being referred to [in '903 patent, 6:59–62] is a software application running on the mobile device." Ex. 13, 273:21–274:20. Thus, CK's bare assertion that the "authentication function" may be merely *part of* an applet is unsupported, and should be rejected.

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[1] All emphasis in this brief is supplied, unless noted otherwise.

ii.   CK next concludes that Dr. Cole's construction does not exclude the specification's disclosed *hardware* embodiments of the "authentication function." Opp. 9. CK begins by suggesting Dr. Cole could *ignore* the hardware embodiments because he accuses *only* a software product of infringement. Opp. 9. But CK cites no authority supporting that a construction can exclude disclosed embodiments in a specification because they do not resemble the accused products. CK, at the same time, fails to address the Federal Circuit's unambiguous directive that "[w]e normally do not interpret claim terms in a way that excludes embodiments disclosed in the specification" unless, for instance, "those embodiments are clearly disclaimed in the specification or prosecution history." *Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1276 (Fed. Cir. 2008); Br. 10.

Next, CK argues Dr. Cole's construction does not actually exclude the hardware embodiments. Relying on deposition testimony of its *invalidity expert*, Dr. Shamos (and not Dr. Cole), CK contends that, for the hardware embodiments where the "authentication function" is a SIM card within a mobile device (Br. 3, 8–9 (citing Ex. 3 at 9:20–40)), there is *software* on the SIM card, and thus his construction encompasses this embodiment. Opp. 9–10. But the specification never describes an embodiment where the "authentication function" is *software* that resides on a SIM card. Instead, in the passage CK cites, the "authentication function" is the SIM card itself.[2] Opp. 9 (citing Ex. 3 at 9:8–40). For instance, the specification states, "The controller 44 will then automatically deactivate *the authentication function (SIM card)* after a certain time interval." Ex. 3 at 9:8–40. Dr. Cole agrees: referring to this exact specification passage, he conceded that "it says authentication function and in parenthesis, SIM card, which to me I would

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[2] CK also vaguely asserts Dr. Cole's construction does not exclude the embodiments where the "authentication function" is a transceiver because the specification "explains the use of 'controllers,'" which may comprise software. Opp. 10. As discussed above, however, the transceiver, not the controller, is the "authentication function" in this example. *Supra* II.A.1.i.

3

take it's referring to the SIM card as the authentication function." Ex. 1, 115:14–116:14.

      iii.   CK argues that Defendants seek to limit "authentication function" to "certain embodiments in the patent." Opp. 10–12. That is wrong. The issue is whether Dr. Cole's construction, under which the "authentication function" can be an arbitrary source code block, is wrong as a matter of law because it finds no support in, and is inconsistent with, the specification. Br. 8–9. As explained, the Federal Circuit repeatedly has rejected claim constructions not contemplated by the specification, including circumstances where every disclosed embodiment is inconsistent with the construction. Br. 9–10 (citing *Profectus Tech. LLC v. Huawei Techs. Co.*, 823 F.3d 1375, 1380–81 (Fed. Cir. 2016); *Clare v. Chrysler Grp. LLC*, 819 F.3d 1323, 1325, 1331–32 (Fed. Cir. 2016); *Vederi, LLC v. Google LLC*, 813 F. App'x 499, 503–04 (Fed. Cir. 2020)).[3]

      CK does not dispute these rulings or the claim construction precedent applied in these cases. CK's only response is a perfunctory assertion that these cases "concern circumstances where the specification contained ***no*** supporting disclosure." Opp. 12 (emphasis in original). But, as explained in Defendants' opening brief, there is no "supporting disclosure" for Dr. Cole's construction here. In addition, as detailed above, despite CK's opportunity to identify in the

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[3] CK misstates the record, claiming Defendants and their experts concede "'authentication function' is a 'term of art' that refers to 'a block of source code.'" Opp. 12. Neither Defendants nor their experts have stated "authentication function" is a term of art. While "function" may be a term of art in the context of source code, the phrase in question, "*authentication* function" is not a term of art in the field of cybersecurity. *See Irdeto Access, Inc. v. Echostar Satellite Corp.*, 383 F.3d 1295, 1300 (Fed. Cir. 2004) (where "a disputed term lacks an accepted meaning in the art," courts should "construe a claim term only as broadly as provided for by the patent itself"). CK may not substitute a supposed definition of source code "function" for the term "authentication function" in the patent, which never contemplates using a block of source code, and presents examples of authentication functions inconsistent with CK's proposed definition. Br. 8–10; *Network Com., Inc. v. Microsoft Corp.*, 422 F.3d 1353, 1360 (Fed. Cir. 2005) (rejecting "download component" construction using separate definitions of "download" and "component"); *TVnGO Ltd. (BVI) v. LG Elecs. Inc.*, 861 F. App'x 453, 457–58 (Fed. Cir. 2021) (rejecting construction of "overlay activation signal" based on combination of individual definitions and holding claim indefinite); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583–85 (Fed. Cir. 1996).

specification any disclosure demonstrating that the "authentication function" can be an arbitrary source code block, CK came up empty. *Supra* II.A.1.i. CK likewise offers no authority accepting a claim construction not contemplated within the intrinsic record. *See* Opp. 10–11.

Finally, CK asserts the claim language does not limit the "authentication function." Opp. 11. CK gets the issue backwards. Because *Dr. Cole* has construed the term, the question here is whether anything in the specification or elsewhere in the intrinsic record *supports* his construction, under which the "authentication function" can be an arbitrary source code block. CK identifies no such support. Nor does CK's mischaracterization of the testimony of Defendants' expert, Dr. Jeffay, cure CK's problem. Opp. 11. A straightforward review of his cited testimony—which Dr. Cole never relied on in any event—confirms Dr. Jeffay correctly stated that an authentication function can be an applet (*i.e.*, application), and that the disclosed hardware embodiments—where the hardware component on the mobile device is *itself* the "authentication function" (*i.e.*, transceiver or SIM card)—could include software. Opp. Ex. 13, 15:7–8, 15:25–17:7. Contrary to CK's assertion, Dr. Jeffay never stated that the "authentication function" can be an arbitrary code block that is either (a) *something less* than an applet itself, or (b) software residing on the hardware component (*i.e.* transceiver or SIM card) while excluding the hardware itself. *Supra* II.A.1.i.

2. The Construction Renders the Claims Indefinite

CK provides no explanation or support for how a skilled artisan would, under Dr. Cole's construction, understand "the scope of the invention" "with reasonable certainty." Opp. 12–14.

Instead, CK asserts Defendants "do not argue that they cannot understand" the scope of this construction. Opp. 12. But, as Defendants detailed, Dr. Cole offers no explanation why, under his "open-ended" construction, ███████████████████████████████

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████████████████████████████████ Br. 10–12 (citing *IQASR LLC v. Wendt Corp.*, 825 F. App'x 900,

906 (Fed. Cir. 2020)); Ex. 1, 236:15–237:4. Thus, Dr. Cole offers no basis for a skilled artisan to

understand what falls within and outside the scope of his construction with reasonable certainty.

CK also suggests other claim limitations about what is *done* by or to the "authentication

function" somehow saves the claims from indefiniteness. Opp. 13. But what the authentication

function *does*, does not delineate what it *is*. And if Dr. Cole's construction applied, a skilled artisan

would have no notice of *what* the "authentication function" can or cannot be in the first place.

Furthermore, recognizing the fundamental problem with Dr. Cole's construction, CK

highlights the indefiniteness of this construction by presenting a wholly new, but still indefinite,

construction. CK now argues that the "authentication function" is code that "*actually perform[s]*

the authentication." Opp. 13. But there is no support for that construction in the specification (CK

cites none), and this is not even the construction Dr. Cole applied. *Cf.* Ex. 11 ¶ 74. CK's assertion

should be rejected for these reasons alone. In any event, even CK's application of its new

construction demonstrates that its new construction is just as "open-ended" and arbitrary as Dr.

Cole's. Br. 11–12. Specifically, in applying its new construction where the "authentication

function" is the "software elements" that "actually perform[] the authentication," CK states that

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██ Br. 11–12

(citing Ex. 1, 236:15–237:4). CK's malleable claim interpretation cannot save Dr. Cole's opinions.

Finally, CK contends that Dr. Cole did not need to "define 'authentication function' at all." Opp. 14. But—recognizing the need to stretch the claim to attempt to show infringement—Dr. Cole *did* define "authentication function," and his definition is legally wrong in numerous respects. Br. 8–12. Regarding indefiniteness in particular, his construction would impermissibly "require[] reliance on subjective opinion" by a person of ordinary skill of the art (and any finder of fact) regarding which code blocks are "needed." Br. 11–12; *IQASR*, 825 F. App'x at 907.

B.   Dr. Cole's Construction and Corresponding Opinions Must Be Excluded

Expert opinions that "improperly appl[y] legal principles, such as those relating to claim construction," are unreliable and should be excluded. *Sprint Commc'ns Co. L.P. v. Cox Commc'ns Inc.*, 302 F. Supp. 3d 597, 624 (D. Del. 2017); *see Minerva Surg., Inc. v. Hologic, Inc.*, 2021 WL 3048447, at *6 (D. Del. July 20, 2021) ("The opinions of a patent infringement expert who applies an erroneous claim construction are inadmissible.") (collecting cases); Br. 7–8. Because Dr. Cole's construction is legally wrong, his construction and opinions applying it should be excluded.

CK invites legal error, arguing the Court should not consider the merits of Defendants' motion and that Dr. Cole be allowed to present his faulty construction to the jury. Specifically, CK contends this claim construction dispute is waived because it was not identified at the *Markman* hearing. Opp. 6; *see also* Opp. 1, 3–4. But CK ignores that this dispute arose only *after* CK changed its infringement theory because the Court's *Markman* order foreclosed CK's infringement contentions in place at the time. When identifying terms for inclusion in the January 2024 Amended Joint Claim Construction Chart (D.I. 122), Defendants necessarily relied on those November 2023 infringement contentions (Ex. 5). Specifically, CK had accused the Duo Mobile app, which is not "locally activated" on the mobile device. Br. 4; *compare* Ex. 5 at 48–49 *with* Ex. 8 (May 2024 contentions) at 52. There was no need to construe "authentication function" when CK accused an "applet," rather than an arbitrary sub-part of an applet as Dr. Cole does now. *Vivid*

7

Techs., Inc. v. Am. Sci. & Eng'g, Inc., 200 F.3d 795, 803 (Fed. Cir. 1999).

CK's belated construction and infringement theory are at issue here. Thus, CK's new construction presents a live dispute as to the meaning of "authentication function" that, under Federal Circuit precedent, must be resolved before the case is presented to the jury. *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008) (holding that a district court must resolve claim construction disputes, including disputes about a term's plain meaning). CK's assertion likewise ignores that courts, including in this District, have engaged in supplemental claim construction under similar circumstances. *See, e.g.*, *TQ Delta, LLC v. Verizon Servs. Corp.*, No. 1:15-cv-00616-GBW, D.I. 725 at 16 (D. Del. Nov. 19, 2024) (ordering supplemental briefing on claim construction dispute prompted by opinions presented in expert reports); *Ingevity Corp. v. BASF Corp.*, No. 1:18-cv-01391-RGA, D.I. 313 at 1 (D. Del. June 22, 2020) (claim construction briefing ordered for late-arising claim construction dispute).

CK's attempts to distinguish Defendants' cited case law requiring exclusion of an expert's legally improper opinions also fail. Opp. 6–7. For instance, CK argues that *Sprint* involved only an expert's opinions that contradicted the court's claim construction order. Opp. 7–8. But CK focuses on the wrong portion of the *Sprint* decision, ignoring the separate, relevant holding that expert opinions "improperly applying legal principles, such as those relating to claim construction," are unreliable and should be excluded. 302 F. Supp. 3d at 624. CK tries to distinguish Defendants' other cited case law that reached the same conclusion as *Sprint* by arguing that "Defendants are unable to point to any aspect of Dr. Cole's opinions that is legally erroneous." Opp. 8. But Defendants have identified numerous legal errors. And CK's cited case law concerns disputes over applying constructions, not whether a construction was correct.

III.   CONCLUSION

Defendants respectfully request that the Court grant Defendants' motion.

8

OF COUNSEL:

Brian A. Rosenthal
Katherine Dominguez
Allen Kathir
Hyunjong Ryan Jin
Charlie Sim
GIBSON, DUNN & CRUTCHER LLP
200 Park Avenue
New York, NY 10166-0193
(212) 351-4000

Jaysen S. Chung
Julian Manasse-Boetani
GIBSON, DUNN & CRUTCHER LLP
One Embarcadero Center, Suite 2600
San Francisco, CA 94111-3715
(415) 393-8200

Nathaniel R. Scharn
GIBSON, DUNN & CRUTCHER LLP
3161 Michelson Drive, Suite 1200
Irvine, CA 92612-4412
(949) 451-3800

January 31, 2025

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

/s/ Jennifer Ying

Jennifer Ying (#5550)
Travis J. Murray (#6882)
1201 North Market Street
P.O. Box 1347
Wilmington, DE 19899
(302) 658-9200
jying@morrisnichols.com
tmurray@morrisnichols.com

Attorneys for Defendants Duo Security LLC
f/k/a Duo Security, Inc. and Cisco Systems, Inc.

CERTIFICATE OF SERVICE

I hereby certify that on January 31, 2025, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

I further certify that I caused copies of the foregoing document to be served on January 31, 2025, upon the following in the manner indicated:

David E. Moore, Esquire   *VIA ELECTRONIC MAIL*
Bindu A. Palapura, Esquire
Andrew M. Moshos, Esquire
POTTER, ANDERSON & CORROON LLP
Hercules Plaza, 6th Floor
1313 North Market Street
Wilmington, DE 19801
Attorneys for Plaintiff

Scott T. Weingaertner, Esquire   *VIA ELECTRONIC MAIL*
Stefan Mentzer, Esquire
John Padro, Esquire
Matthew Wisnieff, Esquire
Lauren Kuehn Pelletier, Esquire
Timothy Francis Keegan, Esquire
GOODWIN PROCTER LLP
The New York Times Building
620 Eighth Avenue
New York, NY 10018
Attorneys for Plaintiff

Farzad Feyzi, Esquire   *VIA ELECTRONIC MAIL*
GOODWIN PROCTER LLP
601 Marshall Street
Redwood City, CA 94063
Attorneys for Plaintiff

                                         /s/ Jennifer Ying
                                         _____
                                         Jennifer Ying (#5550)

10